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(71) Applicant (for all designated States except US): OTIS ELEVATOR COMPANY [US/US]; Ten Farm Springs, Farmington, CO 06032 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SIEWERT, Bryan, Robert [US/US]; 37 Overlook Drive, Westbrook, CT 06498 (US). THOMPSON, Mark, S. [US/US]; 151 Old Kent Road North, Tolland, CT 06084 (US). HOLOWELL, Richard, L. [US/US]; 36 Richardson Drive, Hebron, CT 06248 (US).

(74) Agent: O'BRIEN, Sean, W.; Intellectual Property Department, Otis Elevator Company, Ten Farm Springs, Farmington, CT 06032 (US).

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(54) Title: ELEVATOR SYSTEM WITHOUT A MOVING COUNTERWEIGHT

(57) Abstract: An elevator system (20) includes a cab (22) supported for movement within a hoistway. A plurality of cab-supported sheaves (36, 42) moves with the cab through the hoistway. A first hoistway sheave (38) is located near a first end of the hoistway, and a second hoistway sheave (40) is located near a second end of the hoistway. A load bearing member (30) is provided, which (i) extends from near the first end of the hoistway toward the cab, where the load bearing member is redirected by one of the plurality of cab-supported sheaves toward the first end of the hoistway, (ii) at least partially wraps around each of the first hoistway sheave and the second hoistway sheave, and (iii) extends from near the second end of the hoistway toward the cab, where the load bearing member is redirected by another of the plurality of cab-supported sheaves toward the second end of the hoistway. A tension device (44) maintains tension in the load bearing member.